

Appl. No. : 09/767,207
Filed : January 22, 2001

AMENDMENTS TO THE CLAIMS

Please add new Claims 38 – 50.

Please cancel Claims 1-26 as being directed to a non-elected invention.

Please amend Claims 27, 32, and 33 as follows:

1 - 26. (canceled)

27. (currently amended) A connector fitting for releasably securing a ~~releasable~~ medical line to an adaptor with an elongated tubular portion, the fitting ~~connector system~~, comprising:

~~an adaptor comprising an elongated tubular portion;~~

~~a connector fitting comprising~~ an elongated body having an external radius R_1 , at least a portion of which is adapted to insert into the tubular portion of the adaptor, and at least one radially extending member disposed upon the elongated body, the at least one radially extending member having at least one contact surface, and the at least one radially extending member having a maximum radius R_2 ; and

a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body of the connector fitting, and a receptacle disposed distally upon the spin nut having an internal cross section, the receptacle having at least one contact surface, the at least one contact surface configured and arranged to interact with the at least one contact surface of the spin nut when the receptacle receives at least a portion of the radially extending member so as to transfer both axial and rotational forces between the spin nut and the connector fitting, the spin nut having an external radius R_3 , the radii R_1 , R_2 and R_3 are sized such that $R_3 - R_2 < R_2 - R_1$.

28. (original) A connector fitting for releasably securing a medical line to an adaptor with a tubular portion, the fitting comprising:

an elongated body, at least a portion of which is adapted to insert into the tubular portion of the adaptor, and at least one radially extending member disposed upon the elongated body, the at least one radially extending member having at least one contact surface; and

a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body, a second screw thread disposed upon an inner surface of the

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spin nut, and a receptacle disposed distally upon the spin nut having an internal cross section, the receptacle having at least one contact surface disposed proximally of the distal end of the spin nut, the at least one contact surface configured and arranged to interact with the at least one contact surface of the spin nut when the receptacle receives at least a portion of the radially extending member so as to transfer both axial and rotational forces between the spin nut and the connector fitting.

29. (original) A connector fitting as in Claim 28 in combination with a retainer comprising a channel that extends through the retainer along a longitudinal axis, and at least one slot which receives the at least one radial member of the connector fitting in order to secure the fitting in position upon the retainer.

30. (original) A connector fitting for releasably securing a medical line to an adaptor, the fitting comprising:

an elongated body with at least one radially extending member disposed upon the elongated body; and

a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body, a second screw thread disposed upon an inner surface of the spin nut, and a receptacle disposed distally upon the spin nut having an internal cross section which varies radially about its circumference,

at least a portion of the radially extending member being adapted to be inserted into the receptacle of the spin nut, said portion extending entirely around the axis of the elongated body.

31. (original) A connector fitting as in Claim 30 in combination with a retainer comprising a channel that extends through the retainer along a longitudinal axis, and at least one slot which receives the at least one radial member of the connector fitting in order to secure the fitting in position upon the retainer.

32. (currently amended) A connector fitting for releasably securing a ~~releasable~~ medical line to an adaptor with an elongated tubular portion, the fitting ~~connector system~~, comprising:

~~an adaptor comprising an elongated tubular portion;~~

~~a connector fitting comprising an elongated body, at least a portion of which is adapted to insert into the tubular portion of the adaptor, and at least one radially~~

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extending member disposed upon the elongated body, the at least one radially extending member having an external cross section which forms a polygon; and

 a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body of the connector fitting, and a receptacle disposed distally upon the spin nut having an internal cross section which varies radially about its circumference.

33. (currently amended) A ~~medical line~~ connector fitting system as in Claim 32 wherein the external cross section of the at least one radially extending member is a hexagon.

34. (original) A connector fitting for releasably securing a medical line to an adaptor having a tubular portion, the connector fitting comprising:

 an elongated body, at least a portion of which is configured to be inserted into the tubular portion of the adaptor, and the elongated body having at least one radially extending member disposed upon the elongated body, the at least one radially extending member having multiple contact surfaces; and

 a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body, and having at least one contact surface disposed upon the spin nut and configured to interact with the multiple contact surfaces of the radially extending member so as to transfer a rotational force between the spin nut and the radially extending member.

35. (original) A fitting as in Claim 34 wherein the at least one contact surface of the spin nut is disposed upon a distal end of the spin nut.

36. (original) A fitting as in Claim 34 wherein the spin nut further comprises a receptacle disposed distally upon the spin nut and wherein the at least one contact surface of the spin nut is disposed within the receptacle of the spin nut.

37. (original) A connector fitting for releasably securing a medical line to an adaptor having a tubular portion, the connector fitting comprising:

 an elongated body, at least a portion of which is configured to be inserted into the tubular portion of the adaptor, the elongated body having at least one radially extending member disposed upon the elongated body, the radially extending member having multiple contact surfaces; and

 a spin nut comprising a generally tubular body slidably and rotatably disposed upon the elongated body, and having multiple contact surfaces disposed upon the spin

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nut, the multiple contact surfaces of the spin nut configured to interact with the multiple contact surfaces of the radially extending member so as to transfer a rotational between the spin nut and the radially extending member.

38. (new) A connector fitting as in Claim 28 wherein the spin nut further comprises a second screw thread disposed upon an inner surface of the spin nut.

39. (new) A connector fitting as in Claim 38 wherein the spin nut is slidable between at least a proximal position and a distal position, and wherein the second screw thread of the spin nut is configured to engage the adaptor when the tapering portion of the connector fitting is inserted into the tubular portion of the adaptor and the spin nut is in the proximal position, and wherein the receptacle of the spin nut is configured to engage the radially extending member of the connector fitting when the spin nut is in the distal position.

40. (new) A connector fitting as in Claim 39 wherein the engagement between the spin nut and the radially extending member when the spin nut is in the distal position provides transfer of distally directed force from the spin nut to the connector fitting and provides transfer of rotational torque from the spin nut to the connector fitting.

41. (new) A connector fitting as in Claim 28 wherein a greatest radius of the radially extending member is greater than a least radius of the receptacle.

42. (new) A connector fitting as in Claim 28 wherein the connector fitting is disposed upon the proximal end of a medical line.

43. (new) A connector fitting as in Claim 28 wherein the connector fitting includes a second radially extending member which is configured to cooperate with a slot of an anchoring system.

44. (new) A connector fitting as in Claim 28 wherein the engagement between the spin nut and the connector fitting when the spin nut is in the distal position transfers rotational motion between the spin nut and the connector fitting so that the spin nut and connector fitting rotate together.

45. (new) A connector fitting as in Claim 28 wherein the engagement between the spin nut and the connector fitting when the spin nut is in the distal position inhibits distal motion of the spin nut relative to the connector fitting.

46. (new) A connector fitting as in Claim 28 wherein the external cross section of the radially extending member has a generally hexagonal shape.

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47. (new) A connector fitting as in Claim 28 wherein the internal cross section of the receptacle of the spin nut has a generally hexagonal shape.

48. (new) A connector fitting as in Claim 28 wherein the internal cross section of the receptacle of the spin nut has a star shape.

49. (new) A connector fitting as in Claim 48 wherein the internal cross section of the receptacle of the spin nut has twelve points.

50. (new) A connector fitting as in Claim 28 wherein the elongated body has an external radius R_1 , the at least one radially extending member has a maximum radius R_2 , and the spin nut has an external radius R_3 , and wherein the radii R_1 , R_2 and R_3 are sized such that $R_3 - R_2 < R_2 - R_1$.